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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In Re Application of

Mark A. Kappel

Serial No: 10/064,146


Group Art Unit: 3729

Filed: 06/14/2002

Examiner: Phan, Thiem

For: ELECTRICAL CONNECTOR EXTRACTION TOOL

Attorney Docket No: 126063 (GEMS 0163 PUS)

CERTIFICATE OF MAILING/TRANSMISSION (37 CFR §1.8(a))	
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Date	Karen A. Hopf

REVISED BRIEF ON APPEALMail Stop Appeal Brief – Patents  
Commissioner for Patents  
Box 1450  
Alexandria, VA 22313-1450

Sir:

The following Appeal Brief is submitted pursuant to the Notice of Appeal filed on August 7, 2006, and the Notification of Non-Compliant Appeal Brief mailed on April 6, 2007.

The Commissioner is authorized to charge any necessary fee to Deposit Account No. 50-0476.

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**I. Real Party in Interest**

The real party in interest in this matter is the General Electric Company.

**II. Related Appeals and Interferences**

There are no other known appeals or interferences which will directly affect or be directly affected by or have bearing on the Board's decision in the pending appeal.

**III. Status of the Claims**

Claims 1-8 and 10-12 stand rejected in the Advisory Action dated June 8, 2006. Claims 14-17 stand withdrawn. Claims 9 and 13 stand as objected to but allowable if rewritten in independent form. A copy of the claims on appeal is attached as an Appendix.

**IV. Status of Amendments Filed After Final**

No Amendments were filed following the final rejection.

**V. Summary of Claimed Subject Matter**

The present invention is directed to an extraction tool for an electrical connector. In certain devices such as CT machines and MRI machines, access into the devices is often limited. Service technicians must disconnect various connectors in order to service the device. The present invention provides a means for removing a connector. The present application includes other devices for disconnecting circuit boards and the like but are not subject to the present claims. The Examiner sets forth the Greco reference which is a device for disconnecting a circuit board rather than a connector. As will be evident below, this is a different function that operates differently and does not include the limitations of the present claim.

With reference to Figs. 9-12 and the description in paragraphs 52-56, Claim 1 recites a tool 140 (para. 52, lines 1-3) for removing a first connector portion 22 having a retraction feature 52 (a better view of the retraction feature alone is set forth in Figure 3). The tool 140 includes a piston assembly 141 (para. 53, lines 1-4) having a sliding channel therethrough. The tool further includes a cross-member 156 (para. 53, lines 7-8) slidably

receiving the piston assembly. The cross-member has a slot 162 (para. 53, line 10) therein. The cross-member 156 has a post head 158 sized to be received within the retraction feature 52. A pin 160 is positioned within the channel and is slidably received within the slot.

Claim 10 is also an independent claim which recites more detail with respect to the piston assembly 141 (para. 53, lines 1-4). Claim 10 recites a piston 142 having a handle 144 (para. 53, lines 2-3) disposed on the first end and a channel 146 disposed on the second end. Claim 10 further recites a grip 152 (para. 53, line 8) having an opening 150 therethrough for slidably receiving the piston 142 and a spring 148 located on the piston 142 between the handle 144 and the grip 152. The spring 148 urges the handle 144 away from the grip 152. A sleeve 154 (para. 53, line 6) is adjacent to the grip 152 for slidably receiving the piston 142. A cross-member 156 (para. 53, line 10) is adjacent to the sleeve 154. The cross-member 156 has a slot 162 therein. The cross-member 156 has a post head 158. The tool further comprises a pin 160 (para. 53, lines 8-11) positioned within the channel 146 and slidably received within the slot 162.

#### **VI. Grounds of Rejection to be Reviewed on Appeal**

The following issues are presented in this appeal:

Whether claims 1-8 and 10-12 are anticipated under 35 U.S.C. §102(b) by *Greco* (4,215,468).

#### **VII. Argument**

##### **The Rejection of Claims 1-8 and 10-13**

For a proper §102 rejection, each and every element of the claims must be found in the reference. Applicants respectfully submit that each and every element of the claims is not found in the *Greco* reference.

The present invention is directed to an extraction tool for an electrical connector. In certain devices such as CT machines and MRI machines, access into the devices is often limited. Service technicians must disconnect various connectors in order to service the device. The present invention provides a means for removing a connector. The present application includes other devices for disconnecting circuit boards and the like but are not subject to the present claims. The Examiner sets forth the *Greco* reference which is a device for disconnecting an integrated circuit rather than a connector. As will be evident below, this is a

different function that operates differently and does not include the limitations of the present claim.

Applicants respectfully submit that a piston assembly and a cross-member slidably received within the piston assembly is not taught or suggested. Applicants respectfully submit that due to the function of the present invention, a substantial difference exists between Claim 1 and the *Greco* reference. Claim 1 recites "said cross-member having a post head sized to be received **within** the retraction feature." The retraction feature is a feature on the connector portion as recited in the preamble. The Examiner points to Fig. 7, reference numeral 20, for a post head. Applicants respectfully submit that no post head that is sized to be received within a retraction feature of a connector is taught or suggested. It appears that the reference numeral 30 is merely a pin. The pin is better shown in Fig. 10. The pin is merely a single diameter pin that extends through the device upon which the slots 23 slide on. There is no post head on the pin and thus no post head is present that is sized to be received within a retraction feature. No teaching is found for engaging a retraction feature. This is not surprising because the *Greco* reference is for a substantially different purpose than that of the present application. The *Greco* reference is used for disconnecting an integrated circuit rather than a connector. Applicants therefore respectfully submit that each and every element (the cross-member having a post head sized to be received within the retraction feature) is not taught or suggested in the *Greco* reference. Applicants therefore respectfully request the Board for a reconsideration of Claim 1.

The Applicant further notes that claim 1 recites the limitation "said cross-member having a post head sized to be received within the retraction feature (FROM PREAMBLE: FIRST CONNECTOR PORTION HAVING A RETRACTION FEATURE). Therefore, the **retraction feature of the connector is not part of the tool** as claimed and is only presented to give meaning to the claim in context of the scope of invention. There is, however, a concrete limitation of the post head sized to be received within such a retraction feature of a separate first connector. It appears however that the Examiner incorrectly believes that the retraction feature is part of the tool as claimed and is emphasized by the Examiner's comment, "[A]pplicants urge that *Greco* does not teach the retraction feature, *Greco* does indeed teach the retraction feature of the tool as shown in Figures 1 to 2." Moreover, because the retraction feature of the connector is not part of the tool, the Examiner has failed to show how the pin 30 of the *Greco* reference can be received within the retraction feature. Further, the Examiner has failed to show the post head as required by the claims, as it is the post head that is receivable within a

retraction feature of a connector that is to be removed. Accordingly, Applicants respectfully request the Board's reconsideration in light of today's comments and issue a notice of allowance because the *Greco* reference does not teach or suggest a cross-member having a post head sized to be received **within** the retraction feature as required by the claims

Claim 10 has includes an identical limitation that the post head is sized to be received within the retraction feature. Applicants therefore respectfully submit that Claim 10 is also allowable for the same reasons set forth above with respect to Claim 1.

Claims 2-8 and 11-12 are also believed to be allowable for the same reasons set forth above since they further limit the independent claim.

Claim 9 is a dependent claim dependent on claim 1. Claim 9 was determined to contain allowable subject matter and was deemed allowable if rewritten in independent form. The Applicant petitions this Board to allow claim 9 to be rewritten in independent form and issue should the Board rule against the Applicant with regards to the patentability of claim 1.

Claim 13 is a dependent claim dependent on claim 10. Claim 13 was determined to contain allowable subject matter and was deemed allowable if rewritten in independent form. The Applicant petitions this Board to allow claim 13 to be rewritten in independent form and issue should the Board rule against the Applicant with regards to the patentability of claim 10.

Appellant respectfully requests the Board to reverse the Examiner's rejections and pass the case forthwith. Appellant believes there are several reasons and several elements that have not been found by the Examiner. Appellant therefore respectfully requests the Board for a reversal of all the rejections.

#### **VIII. Appendix**

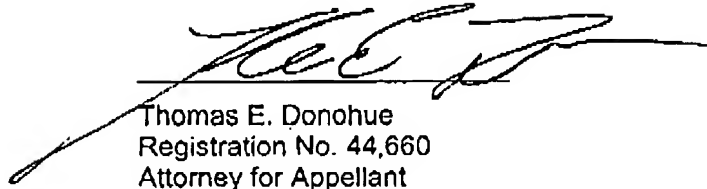
A copy of each of the claims involved in this appeal, namely Claims 1-9 and 11-13, are set forth and attached as Appendix A. Claims 14-17 that have been withdrawn from the case are set forth for completeness.

#### **IX. Conclusion**

For the foregoing reasons, Appellant respectfully requests that the Board direct the Examiner in charge of this examination to withdraw the rejections.

Please charge the fee for filing the Appeal Brief to Deposit Account 07-0845. Please credit any overpayment or charge any additional fees required in the filing of this appeal to deposit account 07-0845.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'TED', is written over a horizontal line.

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Date: April 30, 2007

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## APPENDIX A

1. (Rejected) A tool for removing a first connector portion having a retraction feature comprising:

a piston assembly having a channel therethrough;

a cross-member slidably receiving said piston assembly, said cross-member having a slot therein, said cross-member having a post head sized to be received within said retraction feature; and

a pin positioned within said channel and slidably received within said slot.

2. (Rejected) A tool as recited in claim 1 wherein said piston assembly comprises a piston having a first end and a second end.

3. (Rejected) A tool as recited in claim 2 wherein said piston assembly has a handle disposed on a first end.

4. (Rejected) A tool as recited in claim 2 wherein said channel is disposed on a second end.

5. (Rejected) A tool as recited in claim 2 wherein said piston assembly comprises a grip having an opening therethrough for slidably receiving said piston therethrough.

6. (Rejected) A tool as recited in claim 5 wherein said piston assembly comprises a spring positioned on said piston between said handle and said grip, said spring urging said handle away from said grip.

7. (Rejected) A tool as recited in claim 1 wherein said post comprises a first post and a second post.

8. (Rejected) A tool as recited in claim 1 wherein said pin has an angular shape.

9. (Objected To) A tool as recited in claim 1 wherein said posts comprise a mounting post and a cylindrical portion.

10. (Rejected) A tool for removing a first connector portion having a retraction feature comprising:

a piston having a handle disposed on a first end and a channel disposed on a second end;

a grip having an opening therethrough for slidably receiving said piston;

a spring positioned on said piston between said handle and said grip, said spring urging said handle away from said grip;

a sleeve adjacent to the grip for slidably receiving the piston;

a cross-member adjacent to said sleeve, said cross-member having a slot therein, said cross-member having a post head sized to be received with the retraction feature; and

a pin positioned within said channel and slidably received within said slot.

11. (Rejected) A tool as recited in claim 10 wherein said post comprises a first post and a second post.

12. (Rejected) A tool as recited in claim 10 wherein said pin has an angular shape.

13. (Objected To) A tool as recited in claim 10 wherein said posts comprise a mounting post and a cylindrical portion.



## EVIDENCE APPENDIX

None.

## RELATED PROCEEDINGS APPENDIX

None.